

What is claimed is

1. A copying machine comprising:

a reading unit which reads an image on an original document and outputs image data representing the image;

5 a printing unit which receives printing data and prints according to the printing data;

a data storing unit which stores the image data output from the reading unit;

10 a start-command accepting unit which accepts a start command for starting a copy job when the reading unit is not in a reading operation;

15 a reading-operation control unit which executes such controls that when the start-command accepting unit accepts the start-command of the copy job, the reading-operation control unit causes the reading unit to start the reading operation of reading the image on the original document set to the reading unit and the reading-operation control unit stores the image data output from the reading unit into the data storing unit whether the printing unit is operating or not; and

20 a printing-operation control unit which supplies the printing data based on the image data stored in the data storing unit to the printing unit.

2. A copying machine according to claim 1 further comprising:

25 a managing unit which assigns copy job identifying

information to each copy job of which a start command is obtained by the start-command accepting unit, and manages the correspondence between the image data stored in the data storing unit by the reading-operation control unit and the copy job identified by any of the copy job identifying information;

5 a halting-command accepting unit which accepts a halt command for halting the copy job; and

0 a copy-job halting control unit which executes such controls that the copy-job halting control unit deletes from the data storing unit the image data which is managed by the managing unit and corresponds to the copy job identifying information of the copy job of which the halt command is accepted by the halting-command accepting unit, when the reading-operation control unit carries out a process on the copy job, the copy-job halting control unit causes the reading-operation control unit to halt the execution of the process, and when the printing-operation control unit executes a process on the copy job, the copy-job halting control unit causes the printing-operation control unit to halt the execution of the process.

3. A copying machine according to claim 1 further comprising:
a display; and

5 a display control unit which executes such controls that the display control unit causes the display to display a state

of the process executed by the reading unit and a state of the process executed by the printing unit during the operation of the reading-operation control unit and the printing-operation control unit, and the display control unit causes the display to display a state that the start-command accepting unit can accept the start command of the copy job and the state of the process executed by the printing unit when the reading-operation control unit is not in operation and the printing-operation control unit is in operation.

4. A copying-operation control device connectable to a scanner and a printer, comprising:

a data storing unit which stores image data output from the scanner;

a start-command accepting unit which accepts a start command for starting a copy job when the scanner is not in a reading operation;

a reading-operation control unit which executes such controls that when the start-command accepting unit accepts the start-command, the reading-operation control unit causes the scanner to start the reading operation of reading an image on an original document set to the scanner whether the printer is operating or not, and the reading-operation control unit stores the image data output from the scanner into the data storing unit; and

a printing-operation control unit which supplies a print data element based on at least one of the image data stored in the data storing unit to the printer.

- 5 5. A copying-operation control device connectable to at least one scanner and at least one printer, the copying-operation control device comprising:

a copy job management information storing unit which includes a memory capacity capable of storing plural pieces of copy job management information including scanner identifying information and printer identifying information;

a data storing unit which stores image data output from one of the at least one scanner;

a start command accepting unit which accepts a start command for starting a copy job representing that which scanner being not in operation of the at least one scanner is designated as an image data source and which printer of the at least one printer is designated as a copy data destination;

a copy-job management information forming unit which executes such controls that when the start-command accepting unit accepts the start command for the copy job, the copy-job management information forming unit forms the copy-job management information including the scanner identifying information of the scanner designated as the image data source on the copy job and printer identifying information of the

printer designated as the copy data destination on the copy job, and stores the copy-job management information into the copy job management information storing unit;

5 a reading-operation control unit which executes such controls that when the copy-job management information is formed by the copy-job management information forming unit, the reading-operation control unit causes the scanner identified by scanner identifying information contained in the copy-job management information to start an operation of reading an image on an original document set on the scanner, and the reading-operation control unit associates the image data which the scanner outputs as the result of the reading operation with the copy-job management information and stores the image data into the data storing unit whether or not a printer identified by printer identifying information contained in the copy-job management information is in operation;

10 a printing-operation control which supplies print data based on the image data, stored in the data storing unit in association with the copy-job management information earliest stored in the copy-job management information storing unit, to the printer identified by printer identifying information contained in the copy-job management information; and

15 a management deleting unit which deletes the copy-job management information earliest stored in the copy-job management information storing unit when the operation of the

reading-operation control unit, which is started when the copy-job management information is formed, ends, and the sending of the print data based on the image data associated with the copy-job management information to the printer is completed.

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6. A computer program product including instructions, wherein the instructions, when executed by a computer connected to a scanner and a printer, cause the computer to perform the steps of:

storing image data output from said scanner;

accepting a start command for starting a copy job when the scanner is not in scanning operation;

causing the scanner to start a reading operation of reading an image on an original document set to the scanner as the image data, and storing the image data output from the scanner into the computer whether the printer is operating or not when the start command for the copy job is accepted; and

supplying print data based on the at least one image data stored in the computer to the printer.

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7. A copying machine comprising:

a reading unit which reads an image on an original document;

a printing unit which prints on a printing sheet;

a copying condition accepting unit which accepts a

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designation of copying condition;

a copying-execution command accepting unit which accepts
a copying start command;

a copy-job management data forming unit which forms
5 copy-job management data based the copying condition accepted
by the copying condition accepting unit when the
copying-execution command accepting unit accepts the copy start
command;

a managing unit which manages the copy-job management
10 data formed by the copy-job management data forming unit; and

a copy-job executing unit which refers to the copy-job
management data received from the managing unit, and causes
the reading unit to perform an image reading operation and causes
the printing unit to perform a printing operation,

15 wherein the copy-job management data forming unit forms
copy-job management data whether or not the printing unit is
in operation.

8. A copying machine according to claim 7, wherein

20 the copy-job management data forming unit forms the
copy-job management data including information of the reading
operation and information of the printing operation;

the managing unit is capable of managing a plurality of
copy-job management data, and transfers another copy-job
25 management data to the copy-job executing unit at a time point

that a reading operation of a copy job being currently executed ends;

the copy-job executing units refers to the information of the reading operation and the information of the printing operation which are contained in the copy-job management data received from the managing unit, and concurrently operates the reading unit and the printing unit.

9. A copying machine according to claim 7, wherein the copying machine includes a job cancel accepting unit which accepts the designation of the copy job to be canceled, and

the managing unit manages the copy-job management data in the order of forming the copy-job management data, causes the copy-job executing unit to execute the copy-job management data in the data forming order, and abandons the copy-job management data on the copy job when the job cancel accepting unit accepts the designation of the copy job to be canceled.